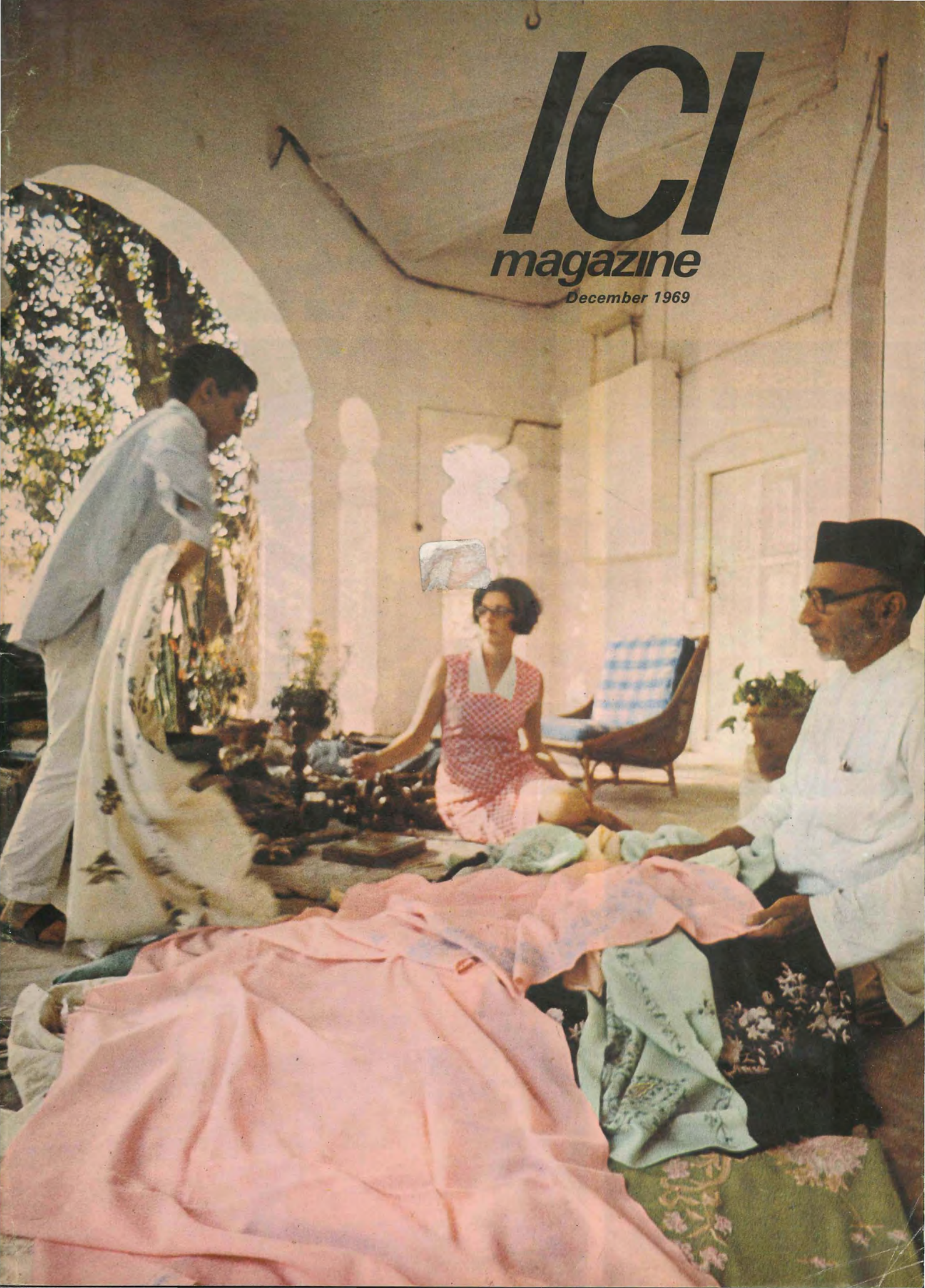
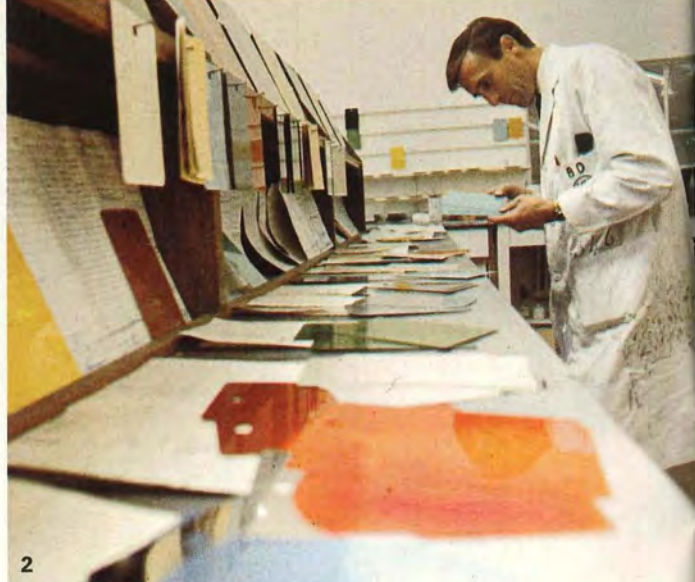


# ICI

*magazine*

December 1969





## in this issue

**1 and 2** They bowl a good wood at the Stowmarket factory of Paints Division in Suffolk – and they make a good colour match, too. See 'The factory in the fields', page 268.

**3** Smoke from these peat flames scents the malted barley that goes to make pure malt whisky through and through. For one ICI man 'The call of the malts' is not to be denied. Page 274.

**4** Tehran. City of mosques and minarets? No, the Persian capital is a vast, sprawling, Westernised city – although the skyline near the bazaar in the old quarter has much of the East about it. See 'The world of ICI', page 282.

**5** Few customers need to be as exacting as the aircraft-makers. Inside Concorde (002 is shown here under test at BAC's Filton Works), several products from ICI Divisions and subsidiaries play an important part. Page 272.



# ICI

## magazine

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## people in print



**John Levison**, who writes about *Decimalisation* (page 286), was assistant accountant in *Plastics Division* when he was transferred to *Head Office* in 1967 to plan and co-ordinate for the Company the change to decimal currency. He was educated at *Edinburgh Academy* and *Edinburgh University*, where he graduated in classics. As a Scottish chartered accountant he joined *Plastics Division* in 1940. He was an active member of many sections in the division recreation club, both as administrator and player, but his exercise is now confined to bowls, gardening and being taken for walks by three dogs. He likes to see new places, and his present job, involving visits to ICI locations and the addressing of seminars throughout the country, is giving him the opportunity to get to know Britain better.



**Charles Purvis**, who writes about *Highland whiskies* on page 274, has been publicity manager of *HOC Division* at *Billingham* since 1960. Before joining ICI in 1955 to work on industrial chemicals in the *Publicity Department* of the then *Billingham Division*, he spent five years as geneticist at the *West African Institute for Oil Palm Research*, *Benin City*, *Nigeria*, after studying plant breeding at the *Plant Breeding Institute*, *Cambridge*. An honours graduate in botany of *King's College (Newcastle)*, *Durham University*, he also gained a diploma in *Agricultural Science* at *Christ's College*, *Cambridge*. Hobbies include nature study and golf (which, he says, with his type of golf combine naturally,) advising keen gardeners, and doing the minimum of work in his own garden.



Admitting that she faced the move to India with some apprehension **Nancy McLellan**, wife of *Tom McLellan*, deputy general manager of the *Kanpur plant*, found no difficulty in adjusting to the vastly different life she is now living, and is 'Quite at home in Kanpur' (page 276). Describing herself as 'just a housewife' she is deeply interested in social welfare, and has always had a great interest in meeting people from other countries. As chairman of a section of an international organisation to which she and her husband belong, she has ample opportunity for this. Herself the mother of a teenage daughter at present studying in *London*, she finds teenagers of all nations stimulating and exciting to be with. Other interests include gardening, interior decorating and flower arranging, for all of which she has found scope in India. While she is actively engaged in many interests in her present environment, she says she has become very lazy domestically, and views with horror doing her own housework and cooking again on her return to England.



**Alan Hamer**, author of 'Helping India's green revolution' (page 279), is chairman of the ICI group of companies in India. Born in *Melbourne*, Mr Hamer had his university education at *Melbourne* and *Oxford*, where he graduated with a first-class honours degree in chemistry. He joined the Australian subsidiary of ICI in 1941. After obtaining experience in plant operations he

became successively a factory manager, manager of research and development and, in 1959, an executive director of the company in charge of technical operations. Until his Indian appointment he had been particularly concerned with the wide fertilizer interests of ICI in Australia.



**Reg Renshaw**, whose article 'Making the cash pay its way' appears on page 280, works in the *Treasurer's Department* at *Head Office*, and until the end of 1968 was an assistant accountant of *ICI Fibres Limited* at *Harrogate* in his native *Yorkshire*. He will shortly be taking over the duties of ICI cashier. A chartered accountant, he joined the Company in 1947, and for seven years was secretary/chief accountant of the merchanting subsidiary in *Egypt*. Hobbies are local politics, beagling and golf, but since moving south his spare time has been spent in gardening.

**Front cover:** In *Kanpur*, northern India, where *Indian Explosives Ltd*, a subsidiary of ICI, has just completed one of the biggest fertilizer plants in Asia, the travelling salesman is a familiar figure to the ICI wives who have lived in the town for a couple of years now. Shawls, silks, embroideries, fabrics from *Kashmir* are among his stock-in-trade, the ageless bargaining of the East his special skill. *Nancy McLellan*, seen here with two of the 'constant stream of men who come to sell things' is the wife of *Tom McLellan*, seconded from *Billingham* since 1967 as deputy general manager on this £34m project, intended to raise food-grain production in India by two million tons. Output of urea from the plant will be 440,000 tons a year.

In her article, 'Quite at home in Kanpur' on page 276, Mrs McLellan gives her personal impressions of life, work and play in Kanpur – and in India – as she and the wives and families of some sixty *Agricultural Division* staff have known it. In his article, 'Helping India's Green Revolution,' *Alan Hamer*, chairman of the ICI group of companies in India, explains the broad commercial and economic meaning of the project.

Photograph: Marilyn Silverstone/Magnum

**Back cover:** When *Brian Young*, of *PPL's* photographic section at *Jealott's Hill Research Station*, flew to North America for a holiday, his *Boeing 707* had to travel farther north than usual. His picture of *Greenland's icy mountains* was the result of looking out of the window at just the right moment.

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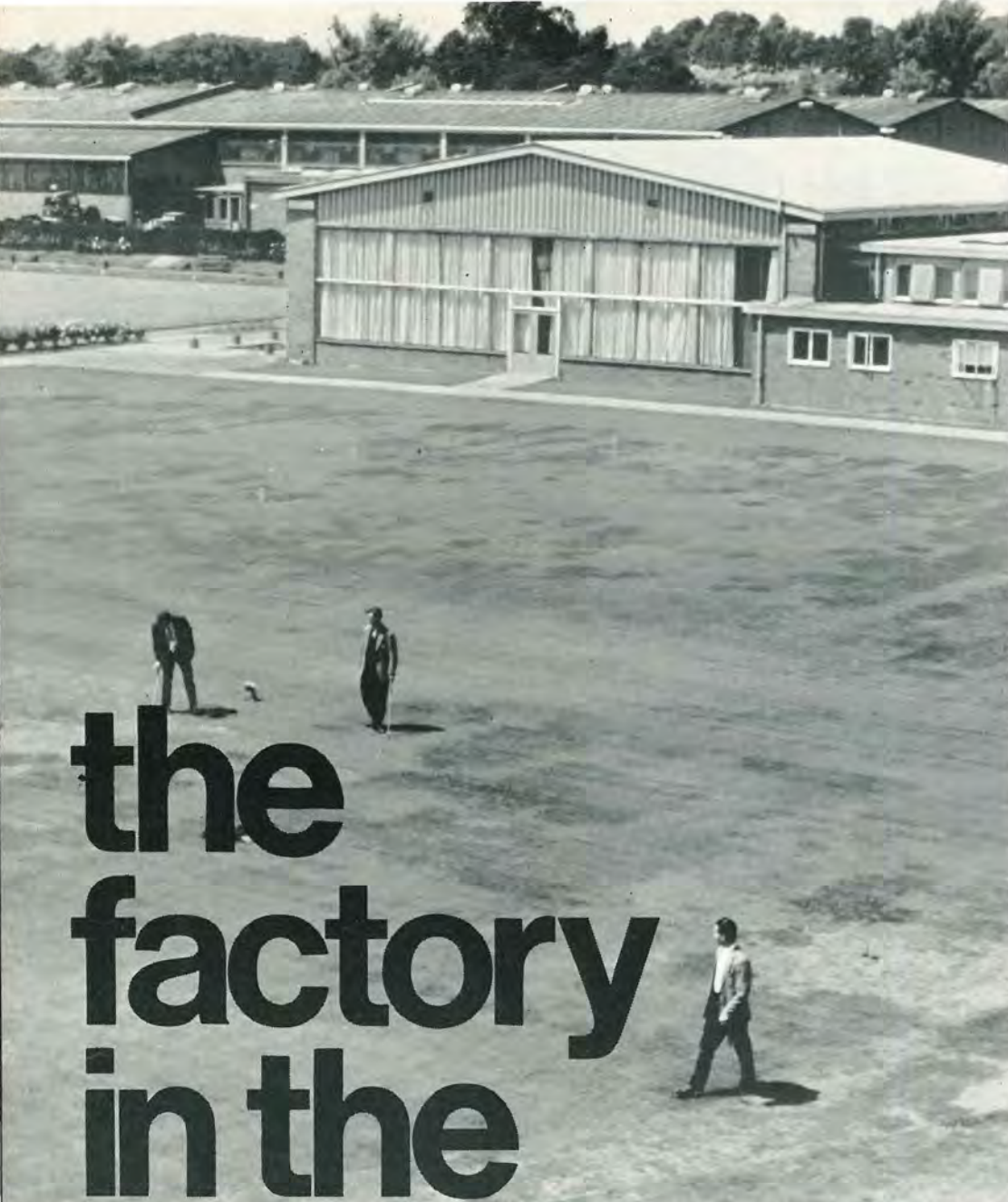
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# the factory in the fields

Deep among the gentle green acres of East Anglia, about twelve miles north-west from Ipswich, Suffolk, and one mile south of the old country town of Stowmarket, stands the most modern large-scale paint plant in the UK, which depends for 90 per cent of its working force on local people. Uniquely-placed, this Paints Division works has not only brought industry into a rural area: it has quietly entered into the pattern of local country life. Within this peaceful setting, however, the plant reflects the dynamic growth of its parent Division in recent years, and has made sweeping changes to meet the needs of that growth. Our picture story introduces some of the people responsible for 40 per cent of the Division's paint output.



## Edgar Seeley – works manager

'I came out here 14 years ago to remodel the whole group of working units, some of which were rather old and rather small, and by so doing to increase the existing output of five million gallons a year. Having put the plans in hand, I took over the place some six months later – and I've been in charge ever since. Today's output is about 60 per cent higher than in 1955.' Edgar Seeley, shown below, left, with production manager Eric Green, joined Paints Division laboratories at Slough back in 1934, and after a short time went into works supervision. A chemist by training, he has been associated with paint works ever since, for 22 years at Slough and 15 at Stowmarket.

'In the last ten years, we have not only rebuilt completely, we have installed new, more efficient plant at a total cost of some £3½m. We have also moved about two-thirds of our people from their old, familiar factory surroundings into completely new ones. We make about eight million gallons of paint a year at Stowmarket, about a third of which goes to the decorative market: it has grown by 25 per cent in the last ten years alone. We make all the 'Dulux' undercoat here; all the eggshell; all the 'Matchmaker' bases (coloured tinters dispersed from a 'Matchmaker' to give any shade demanded by the public); all the 'Dulux' flat paints and some of the gloss coat.

'By contrast, Slough, our sister factory, makes nearly all the gloss paint and most of the emulsion paint – two of the big-volume products of the Division. Their production is rather higher than ours, but we make many more different items – about 7000 compared with their 4500 or so. They make the bulk of the decorative materials, which means larger batch sizes and higher volume.

'We also make quite a lot of special industrial products, in particular for the aircraft industry (including Concorde), for the paper industry (paper lacquers) and for the wood-finish industry (glossy and satin wood finishes). On the motor side, we make all the body finish for many of the large motor manufacturers, both for home and for export: Vauxhall, Jaguar, Rover, Rolls-Royce. Stowmarket also makes a very wide list of products, in a vast colour range for refinishing cars and commercial vehicles.'

To carry out these operations, Edgar Seeley has just under 1000 people, 741 weekly staff and 241 monthly staff. Most of his production people are process operators, but the jobs range from unskilled or semi-skilled up to the very highly-skilled tasks carried out by colour-matchers and by technicians who test the properties and performance of paints.

## Seven area managers

'Seven area managers cover the site, and keep in touch with each other and with me. An area manager's main job is to run his own area – and to know what goes on everywhere else (including personnel, accounts, and engineering). First and biggest area is production, which includes warehousing, despatch, and storage of raw materials and finished products. Then comes technical support, taking in all various laboratory and management services, e.g. work study, process study, work measurement, method study, and preformulation (which has

the job of checking new formulations and new colour matches before they are produced on the plant scale). Next comes works engineering, personnel, and research and development, under our chief chemist. To some extent this has to be independent from production control because it carries out tests for all the inspecting authorities and for the aircraft industry.'

#### A part of the town

There's far more to working at Stowmarket plant than coming into the factory, doing one's job, and going home: 'We're very much a working part of the town, and a part of the district, and we have to see ourselves as such. It would be quite wrong to adopt policies alien to the district. Stowmarket is a small market town of about 8000 people, and most of our own staff come either from the town or one of the villages nearby. So there's hardly a single family without a friend or a relative working here.

'I myself get involved in all sorts of things. I'm chairman of the River Gipping Internal Drainage Board, president of the eastern branch of the Industrial Fire Protection Association and of numerous sports clubs. Life in Stowmarket is full of interest, because it's a flourishing market town. A lot of cattle and pigs change hands on market days and there are some fascinating craft industries like ironwork and the making of cricket bats. It's a wonderful blend of agriculture, local crafts, and modern industry.'

Over his years in Suffolk, Edgar Seeley has become an obsessive gardener, with four greenhouses: 'I grow far too many things really - all sorts of pot plants, flowers, early vegetables, cucumbers, tomatoes . . .'

#### Eric Green - production manager

'I've always been a production man. I'd hate to be stuck behind a desk in some office doing routine work.' In his 36 years of service which

began on the factory floor, Eric Green has done almost every job in paint-making, from laboratory boy through colour-matching to production management. As senior production manager, he co-ordinates all the various activities which eventually produce the paint.

'I control several production departments, each with its own plant manager. One sub-area, under its own manager, makes the intermediates (partly-processed pigmented or other solutions). Another manager looks after all the control activity: the laboratory, the product testing, and the actual mixing. A third makes sure all our filling is done correctly. Finally, another plant manager runs the warehouse.

'I also have lots of contacts outside the factory - with development, sales, and supply departments in the Division at Slough, and with our sales representatives and the laboratory staff of some of our customers in the motor business. When a manufacturer wants a special product - and wants it fast - the message comes straight to me, from sales or our representatives.'

#### Sudden demand - in days - or hours

Most of the production Eric Green controls is to meet a weekly demand pattern, but quite a lot of sudden demand from the refinish and motor markets has to be met within days or even hours: 'I might get a call on a Saturday morning at home from a salesman whose customer wants something by the Monday morning, and I then have to turn people out to make it.'

Eric Green has seen a steady increase in the speed, the scale, and the complexity of manufacturing machinery: 'We have moved a long way from what was really only one method of dispersing [bringing pigment and media together] - the ball mill process dating from 1926 - to the current additional grinding techniques that can produce more - faster.'

'During the war years our works chemist Cyril Hall developed ideas for the production of aircraft finishes by a new method of dispersion, one of which came to be known as "Mixer Dispersion". It is a method of dispersion using nitrocellulose for the shearing [breaking down the substance] action as against the conventional steel or porcelain balls or sand grinding techniques. It can only be used for certain pigments, but it has a shorter grinding cycle, therefore a higher output per hour of machine time, and we also have a variety of equipment to make putty, rubbing compounds, polishes, adhesives and similar products.

'Paint has two main constituents (apart from additives of various kinds designed to give it special properties): pigment, and the basic solution in which that pigment is mixed. At Stowmarket the final products fall into four main groups: nitrocellulose; synthetic; acrylic and water-borne emulsion. Two popular types of solution are one from nitrocellulose, the other from synthetic resins. Nitrocellulose, received raw from Nobel Division, Ardeer, arrives mixed with water for safe transit. A centrifugal process displaces this water and replaces it with alcohol. Solvents such as butyl acetate turn the nitrocellulose into a clear solution.

'The synthetic resins are made in our own varnish department and consist of oils, acid and alcohol, cooked at a temperature around 250°C and finally thinned with solvent, becoming the solution for producing synthetic finishes.

'Now we have to pigment the solution. First we put the dry pigment into ball mills, together with various paint constituents and we grind them with steel or porcelain balls for up to 20 hours at a time until we get a smooth, very concentrated mill base. This material then goes through to the final mixers, where we add the



Inside the central filling shop at Stowmarket, operator Vic Read, left, at the rotary filling machine. It can fill 30 quarter-gallon tins of Brilliant White Dulux Undercoat a minute

Watching over the batch loading of up to 25,000 gallons of paint every day is Alf Wilden, supervisor, Batch Loading, who came to Stowmarket from British Nylon Spinners about 22 years ago. His job is to know who is making what, what they need, and in what order. He sees to it that the right material is ready for the mixer in the right amounts at the right time. So far as possible, he makes his batches almost continuous.

'I try to make sure that the filling pattern is evenly spread through the range of containers -  $\frac{1}{4}$  pint to 40 gallons - and I have to know just who has got the various supplies and how ready they are for production.' During the war, Alf Wilden, a qualified first-aidier who first took it up with the Boys' Brigade in his youth, spent six years in the medical branch of the RAF. Nowadays he acts as an instructor to first-aiders on the plant. Like most Stowmarket people he is a keen gardener.



# the factory in the fields




Former professional footballer George McLuckie played for Blackburn Rovers, Ipswich Town, and Reading before joining ICI at Stowmarket in 1964. His job is to measure, cut and load various processed paint intermediates, and ingredients, for a given batch, as shown by the recipe on the worksheet, to 500/1000-gallon mixers conforming to a production plan. 'You have to see that your pan and your mixer are clean, that you've got the right dip stick, and you're drawing off the right intermediate. You also have to prevent any contamination of one paint by another. And when you get your tinting sample back, you adjust the tint as instructed by the colour-matcher.'

rest of the paint medium: solvents, plasticisers and resins. This produces a series of single pigmented colours. When these are mixed, the colour-matchers shade them to a required standard and batch production goes forward. Instruments can help to determine the *strength* of a product, but we still rely 100 per cent on the human eye to pass every single colour – the eye of the colour-matcher.'

## For every car on the road

'We supply finishes to the motor manufacturers. For every British car on the road we supply a refinish material to match – and not only every British car, but most foreign ones as well. We supply colour standards to all our overseas factories and refinish materials, at home and abroad. Every man who scratches his car probably uses ICI refinish paint to put it right.'

When not at work, Eric Green lives for bowls. He is on the county executive of the sport for Suffolk, he is area secretary for the county, and he's one of the three 'wise men' of Suffolk bowls, who select the county equivalent of the English FA Cup team for the bowls world, the Middleton Cup. 'I play a lot for the county and the works, and I'm playing almost every night of the week in the summer in competitions on our own green inside the works area. We also have an artificial indoor green – a Dunlopillo underlay with a green jute carpet – so that we can play summer and winter alike.' 

'When I asked a previous boss of mine why, out of all the chemical-based industries there are, he had chosen paint, he replied: So many things can go wrong with paint in the making that it offers a bigger challenge than any other product I know.' Bill Smith's own job as a technical support operator presents him with one challenge after another to make quite sure that nothing goes wrong if he can help it. His days are spent checking, testing, proving, trying out products, processes, machines and equipment.

'We support the plant by doing production trials – or proving trials up to production stage – and we also sort out any problems arising, for example, from batches that have gone wrong for some reason or other. We also launch any new product coming out of research and development at Slough – we do initial trials, then scale up to production level.

'There's also the introduction of new intermediates for paint, and new colours. New pigments that may be for entirely new shades are converted to intermediates on a small scale before plant release.'

Having done most production jobs at Stowmarket, which he joined 15 years ago, Bill Smith has worked in technical support since 1962. During that time he has seen his job grow in interest, in variety and in responsibility: 'When you pick up a technical support programme, you often don't know what it will be from one day to another, unless it's long-term. Even with long-term, you see it through from beginning to end, something you don't get on the plant. You're away from the sausage machine . . .

'We're getting more and more instruments into the testing of paints and products now and I feel quite at home with them. Perhaps this is because in private life I'm a very keen radio "ham" – I make radios and keep in touch with other "hams" in many parts of the world, from Greenland to Russia. Instruments can't solve all your problems though.

'We have procedures to follow, but some things only experience can tell you to go for straight away, especially with machines. When you're mixing, for example, you don't have to stand over the mixer the whole time, looking at loadings and watt meters. You can be at the other side of the room doing something else while this mixing goes on – but the tone of the motor will change and this tells you it's a heavier load.'





Photograph: Malcolm Aird

'I've got to satisfy myself the colour is right', says Mervyn Jolly, colour-matcher. At the heart of all paint-making rests the eyes, the skill, the nerve and the judgment of the colour-matcher, a vocation which probably goes back as far as Ancient Egypt. It demands marked natural aptitude – and even then it can take up to six years to master.

'We make large and small batches of materials – from a pint sample to 1000 gallons in size – and a wrong decision on colour can cause a lot of extra work, time and costs. Just one colour can have 40 or 50 distinct variations. You have to know what tints to put on; how much to make, and how to avoid wasteful surplus. Above all you've got to know how to tint to the precise colour needed. But there's more to it than just the colour. Your gloss must be right, and your viscosity [thickness or thinness of liquid] and the correct solids content in each gallon of paint.'

A colour-matcher's job is an art, a craft, and a science in itself, because he has so many factors to bear in mind at once or in fairly quick succession. The real test of his calibre is in keeping down the number of adjustments per batch going through. The good colour-matcher 'gets there in one' so to speak, where a bad one will add small amounts piecemeal – he will need three tints to do what a good colour-matcher can do with one tint.

'My job begins when the colour-matcher has passed the colour,' says Marguerite Palethorpe, one of four girls on this kind of work at Stowmarket. 'They bring it to me and I pour it on to the tinplate panels for customers. Then we pass these plates over to a colour standards operator and they are labelled and distributed to a colour records store. These colours have to be perfect.'


Formerly in an office and after that a dentist's receptionist, Marguerite greatly enjoys the colour work she has been doing since 1965. 'What baffled me most at the start was talking to the colour-matchers who were working with me. They would bring up to me for example, a yellow colour and say "This yellow is too red." I would look at it and see the yellow just as a yellow. Gradually you come to see the tints that make up the colour and in the end you get to see them at once.' But she still disagrees sometimes with the descriptions of colours. 'Someone tells you "This is a grey" and you say, "it can't be, who on earth named this?"' A keen dancer and swimmer, Marguerite also sketches and paints in oils.

Inside one of his greenhouses, Edgar Seeley shows off his lilies and tomatoes. Keeping greenhouses began, he says as a hobby – but has now become something of an obsession. For him, when it is not the factory in the fields, there is always the greenhouse in the garden.

One of the things Stowmarket makes is 'Unigrip', a strong adhesive used to stick rubber soles on shoes. 'There must be millions of them put together with it,' says operator Bob Prew, here seen filling the cans. 'You have to seal it carefully and keep it at a fairly warm temperature.' A miner in his youth, Bob Prew joined ICI at Stowmarket in May 1947. A keen collector of coloured stones – often from Suffolk beaches – he writes to other collectors all over the world.



# ICI in *Concorde*



With the French-built Concorde 001 already flying at well over the speed of sound and Britain's 002 prototype built by the British Aircraft Corporation also ready to 'go supersonic' very soon, the complex trials programme for the world's most advanced passenger aircraft is well advanced.

This joint BAC/Sud Aviation project has gone ahead in great style since 001 and 002 made their maiden flights last Spring. There is still much to be done, including three more years of flight trials, but already results justify the efforts of the Anglo-French team which for seven years has worked on the joint design, development and manufacture of an airliner representing one of the century's major technological achievements. Even before 1962, many team members had worked on separate projects in both France and Britain – and at every stage, in both countries, advice and help has come from hundreds of other firms and organisations which have contributed knowledge and components. Among them have been ICI and some of its subsidiaries – and the following list gives an idea of the Company's contribution

**DESIGN *Plastics Division*** – Without the drawings of designers and draughtsmen there could have been no Concorde – and 'Melinex' polyester film from the Division's Dumfries factory has already been used for more than 20 acres of drafting material on which drawings have been made for the British-made parts of the prototype and pre-production versions. Because of their major technical and cost advantages over traditional materials BAC specified exclusive use of 'Melinex'-based materials for all original drawings – well over 110,000 so far – and for other duplicates and master drawings used in the 'photo-lofting' technique employed in the design stages. They are stronger, and easier to store – and they can be used with either pen or pencil.

**FUSELAGE/WINGS *Mond Division/Imperial Metal Industries Limited*** – Titanium 'granules' from the Bain section of Mond Division's Cassel Works, at Wilton, is melted in special furnaces by the New Metals Division of IMI into ingots for forging, rolling, extruding or drawing into forms from which customer firms produce structural parts for important sections of the aircraft. Titanium has three main qualities – lightness with strength; ability to withstand high temperatures; and outstanding resistance to corrosion. In Concorde, main engine supports are forged in titanium alloys developed by IMI. These and other titanium alloys are used for structural components in the engine nacelle region, and for engine-access doors, hot-air ducting and filter units, hydraulic-pump and filter casings, jack bodies, flying-control units and thousands of bolts and other special fasteners.

**Paints Division** – The red, blue and white external livery of both prototypes is in ICI acrylic aircraft finishes. Those for 002 were made at Paints Division's Stowmarket fac-

tory in Suffolk and those for 001, built by Sud Aviation at Toulouse, were manufactured to Paints Division formulations by Société Française Duco, an ICI associate company and a leader in the French paint market. For both 001 and 002 ICI provided support for the whole painting process – cleaning down, re-priming with ICI epoxy primer and application of finishing coats. ICI 'Alocrom'/'Alodine' 1200 pre-treatment was used throughout and BAC chose ICI epoxy primers for structural protection.

**ENGINES *Mond Division/Imperial Metal Industries Limited*** – Titanium is also used in the four Rolls-Royce/Snecma/'Olympus' 593 turbo-jet engines, for compressor discs, rotor/stator blades and spacer rings, compressor casings and oil sumps.

**ELECTRICS *Plastics Division*** – 'Fluon' PTFE from Plastics Division is used extensively in aircraft for wiring harnesses, conduits and other applications, because of outstanding insulation properties, flexibility and toughness, and chemical resistance over a wide temperature range. A major use in Concorde is for cable insulation, both in the aircraft and in the complicated apparatus. There are 150 miles of cable in each aircraft, and where heat from the engines, or electrical loading takes working temperatures up to 150°C or more, PTFE is essential. Near the engines, special PTFE cable-wrap protects the electrical services with a temperature resistance of over 200°C, and on the main undercarriage electrical systems are encased in braided stainless steel conduit lined with 'Fluon.'

**HYDRAULICS *Plastics Division*** – 'Fluon' is also used in the complex high-pressure hydraulic systems which actuate flying controls, undercarriages and other equipment, as a lining for braided hose operating at



pressures up to 4000 lb/in<sup>2</sup>, and in high-pressure seals. It is also used in hose assemblies in a fuel-drainage safety system and is incorporated in a special laminated material which prevents the aluminium skin of the aircraft coming into contact with the stainless steel of the engine nacelles, to avoid corrosion. Because of its unique 'non-stick' properties, 'Fluon' is also used in bearing materials.

**CABIN** *ICI Hyde - 002* cabin headlining is of fire-resisting 'Vynide' coated fabric.

**Nobel Division** - Silicone rubbers made at Ardeer are used in the aircraft industry for applications requiring rubbers which retain their strength and flexibility over a wide temperature range and which also possess excellent electrical properties. In Concorde they are used in the form of seals for windows; with heat-resistant fabrics as hot-air ducting; and to encase delicate electronic components in navigation equipment.

**Marston Excelsior Ltd** - This IMI subsidiary company makes heat exchangers used in the air-conditioning system.

**TYRES** *ICI Fibres Ltd* - supplied ICI nylon for casings of landing-wheel tyres on 002.

**SAFETY EQUIPMENT** *ICI Fibres Ltd* - also supplied ICI nylon for the brake parachute fitted at the tail of each aircraft to reduce landing-speed after touch down.

**Mond Division** - Fire-extinguishing equipment for the engines uses Mond Division BCF, the modern material which is particularly effective in fighting fires involving hot engine parts, electrical and electronic equipment and inflammable liquids. It offers low cost, toxicity and corrosiveness and high efficiency and stability. In Concorde the BCF is fed to the engines from a single spherical container, using high-pressure nitrogen to blanket any fire quickly. Cabin fire-protection is provided by two types of hand-operated extinguisher, one containing BCF.

# THE CALL OF THE MALTS

Charles Purvis



Barbara Castle and Roy Jenkins between them ruined my hobby for me, with the breathalyser and taxation. Don't misunderstand me, I'm not a boozier, but I used to enjoy calling in pubs to look for and drink malt whiskies. I still enjoy drinking them, but I haven't the dedication of earlier years. I take them as they come now, and don't go actively seeking them.

I can imagine some readers querying my love of malt whiskies and saying that all Scotch whiskies taste the same – poor benighted souls. Most of the whiskies in pubs are blends, roughly equal mixtures of grain and malt whiskies. Grain whisky is made mostly from maize fermented by yeast in a 'Coffey' or patent still in which the alcohol is driven off by steam. It is purer than malt whisky in that it is almost pure alcohol, but it has little flavour.

Malt whisky is made entirely from the watery extract of malted barley, fermented by yeast and distilled in onion-shaped pot stills, from which the flavoured alcohol is driven off by heat. So that when you drink a 'single' malt whisky instead of a blend, it's like always getting the top of the milk – only it comes by the bottleful.

Most malt whiskies come from the highlands of Scotland, north of a line drawn between Dundee and Greenock. One river in particular, the Spey, is especially

associated with whisky, and in a stretch of 33 miles between Grantown-on-Spey and Elgin, often called the Golden Rectangle, there are 28 distilleries within a mile of the road. Altogether in Scotland there are about 100 malt distilleries in operation, and more are being built, but only about 30 malt whiskies are regularly available to the public in the bottle (see map opposite); the majority are taken wholly by the whisky blenders and there are now more than 2000 registered brands of blended whisky.

It's not much of a hobby if there are only 30 different brands, may be your next thought, but there again you'd be wrong. Each brand is usually issued at 70° proof but can also come at 75°, 80°, 100° or 105° proof, and can be anything from five to 25 years old. For instance there are about 20 Glen Grants from five to 20 years old. Now work out the combinations and see how many there are to find.

The main groups of malts are Glenlivets and their like from near the Spey, the Dufftowns, the Northern malts, the Lowland malts, the Campbeltown malts and the Island malts (see map), and they vary very much in character. Whiskies made in neighbouring distilleries vary like wines from adjoining vineyards, and even more between different parts of the country, and no one is quite sure why this should be so.

Some experts say it is the water source and that the best has flowed through peat and over granite, but some of the most famous Glenlivets are made from water drawn from local wells, and one, Glen Mhor, from Loch Ness water. Certainly, soft water is essential, because it dissolves unknown substances from the malt mash to give the characteristic flavour.

The barley used was at one time only of Scottish origin; now mixtures of barley from all over the world are used, but no matter what the source, the malt is always 'peated'. In this process the drying malt is treated with the smoke of burning peat, and some whiskies such as Tomatin, Glenfiddich, Dufftown, Clynelish and Laphroaig have a particularly peaty flavour. Much of the peat now comes from Pitsligo in Aberdeenshire, rather than from local sources, and in some of the Island malts the addition of seaweed to the peat gives a characteristic taste to the whisky.

Malt whisky, like brandy, matures in the cask, and by law whisky must be kept in the cask for three years before it can be sold. Most, however, is not sold until it is five years old, and experts agree that it reaches its best at 15 years. Traditionally, sherry casks are used, and it is this that gives the characteristic colour to the whisky, but as sherry casks have become

- **Glenlivets**
- 1 Glenlivet                      Glenlivet
- 2 Glen Grant Glenlivet        Rothes
- 3 Macallen                      Craigellachie
- 4 Cardhu                        Cardhu
- 5 Glenfarclas Glenlivet        Ballindalloch
- 6 Longmorn Glenlivet        Elgin
- 7 Linkwood                      Elgin
- 8 Tomatin                        Tomatin
- 9 The Blair Athol                Pitlochry
- 10 Glen Mhor                    Inverness
- 11 Glenallachie                Aberlour
- **Dufftown**
- 12 Dufftown Glenlivet        Dufftown
- 13 Glenfiddich                Dufftown
- 14 Balvenie                    Dufftown
- 15 Mortlach                    Dufftown
- 16 Strathlisla Glenlivet        Keith
- 17 Aultmore                    Keith
- **Lowland**
- 18 Bladnoch                    Wigtown
- 19 Rosebank                    Falkirk
- ▲ **Northern**
- 20 Old Pulteney                Wick
- 21 Clynellish                    Brora
- 22 Dalmore                    Alness
- 23 Glenmorangie                Tain
- 24 Balblair                    Edderton
- **Campbeltown**
- 25 Springbank                Campbeltown
- 26 Glen Scotia                Campbeltown
- **Island**
- 27 Laphroaig                    Islay
- 28 Bruichladdich                Islay
- 29 Jura                        Jura
- 30 Talisker                    Skye
- 31 Highland Park                Orkney

**Proof.** The term 'proof-spirit' is a relic of the days when there was no ready method of determining alcohol content, an alcohol being considered under-proof, or not proven, if it contained so much water that gunpowder moistened with it refused to burn, and over-proof if it did not prevent ignition.

Nowadays proof is determined by hydrometer, and proof spirit consists of 49.28 per cent ethyl alcohol by weight or 57.10 per cent by volume, with specific gravity 0.920 at 60°F or 15.66°C, and every 0.5 per cent alcohol above that of proof spirit is described as 1 degree over proof. A simpler way of remembering this is that the relative amount of alcohol to water is 12 to 13 at 51°F.



very difficult to obtain, artificial colouring is added. Some of the very good malts are marketed without colouring.

To get the true flavour of malt whisky, it is better to dilute it with an equal amount of water, and with the higher proofs to add a little more water; but after a good dinner a neat malt whisky can delight the palate as much as a vintage brandy.

In recent years a number of malt whiskies have become fashionable drinks, and it is commonplace to find at least one malt in most pubs. Quite often one can have a pleasant surprise, such as the time when I found an 8-year old 105° proof Glenfarclas in a pub near Teesside, but there is no doubt that malts are easier to find in

the north of England than in the south, and even more easy in Scotland. Though there can be disappointments. I remember one holiday in Scotland when it didn't stop raining for a week, so to pass the time away I drove down the Mull of Kintyre to Campbeltown with a cloud base of 50 feet, and not a hill or island in view, and I didn't find a Campbeltown whisky. It was no consolation to be able to say that I'd seen an American nuclear submarine even though I felt like protesting at the time.

If you wish to be really exclusive, you'll need to travel to Wick for the most northern mainland whisky, Old Pulteney, where it is only available locally, or to Kirkwall in the Orkneys for some 70°

proof Highland Park bottled by John Scott, the grocer and ironmonger. Very shortly there will be a new malt on the market too. On the island of Jura a distillery opened in 1963, and the first whisky to be sold will be an 8-year old. Roll on 1971. Last year another new distillery was opened by the Glenallachie Distillery Company at Aberlour in Banffshire. Its managing director, Mr Delme-Evans, the same man who opened the Jura distillery—God bless him—informs me that some of its output will also be marketed as a single malt, so I can add another Glenlivet to my list!

I wonder if I can arrange a visit to Nobel Division? 🍷

# QUITE AT HOME IN KANPUR

As the great £34m fertilizer plant of Indian Explosives Ltd – Project 2094 – goes into commission, Nancy McLellan, wife of Tom McLellan (seconded from Agricultural Division since 1967 to be deputy general manager of the whole project for IEL), gives her own impressions of daily life in Kanpur for the 100 or so ICI men and women who have been living and working out in Northern India for the past two years

When people ask me, 'Are you glad you came to India?', I can only say, 'Yes, yes, yes'. From the moment on a first brief visit when our train from Calcutta drew into Kanpur in November 1967, after a journey of 600 miles and 18 hours north-west from the east coast, I knew I was going to be happy there. Don't ask my why. Kanpur is no paradise on earth. It is a large, sprawling industrial city, hot, untidy, and far from beautiful, with very few amenities, yet as an experience it has been utterly rewarding.

Apart from the very few cinemas that show English-speaking films, and the Cawnpore Club, with its swimming-pool, tennis courts, bridge room, air-conditioned bar and well-stocked library, life is what you make it. What compensates for this is the sheer friendliness of the local people and their almost overwhelming hospitality. All the inhabitants, both the Indians of Kanpur and the European families still living there, make sure no-one is left out.

When we ourselves finally came to live in Kanpur, it was in the sweltering heat of June 1968. Unfortunately, we were told, this was the 'off-season' for social activities. Since it was a whole month later before we had dinner alone together in our bungalow for the first time, we could only think 'heaven help us in the season!'

Even though from the human side we have never had the feeling of being strangers in a strange land, daily life is inevitably a world away from what we knew at Great Ayton, a quiet, typically English village at the foot of the Cleveland

Hills, where I lived before. Shops as known in England hardly exist. In Kanpur we have grocers – the more modern ones are becoming similar to English ones, usually well stocked with tinned and bottled goods, etc., all Indian made – chemists, and a well-stocked book-shop. And that's about it. With nowhere to buy ready-made clothes, a good *dhurzi* (tailor) is essential.

However, a constant stream of men come to our verandah to sell wood-carvings and carpets from Kashmir, ivories from Assam, lace from Madras. After a time they become rather a nuisance because they won't take no for an answer. So we have started a rather selfish game of 'passing on the salesman'. If there are newcomers to our community, the salesmen are given their names and addresses with a hearty assurance that they will be delighted to buy his wares!

Having servants on the scale that most of us do is a joy in many ways, but it is also like taking on a very large extra family. There seem to be a hundred and one details arising from such a greatly enlarged household.

Since we have few domestic chores, you might well imagine that finding enough to do with our spare time is quite a problem for the women out here. Many of us just don't have any spare time, what with social and committee work and the mass of entertaining I mentioned before. In fact, nearly everyone has quickly found something special to do at Kanpur, either something they always enjoyed or something quite new to them, particularly a new sport.

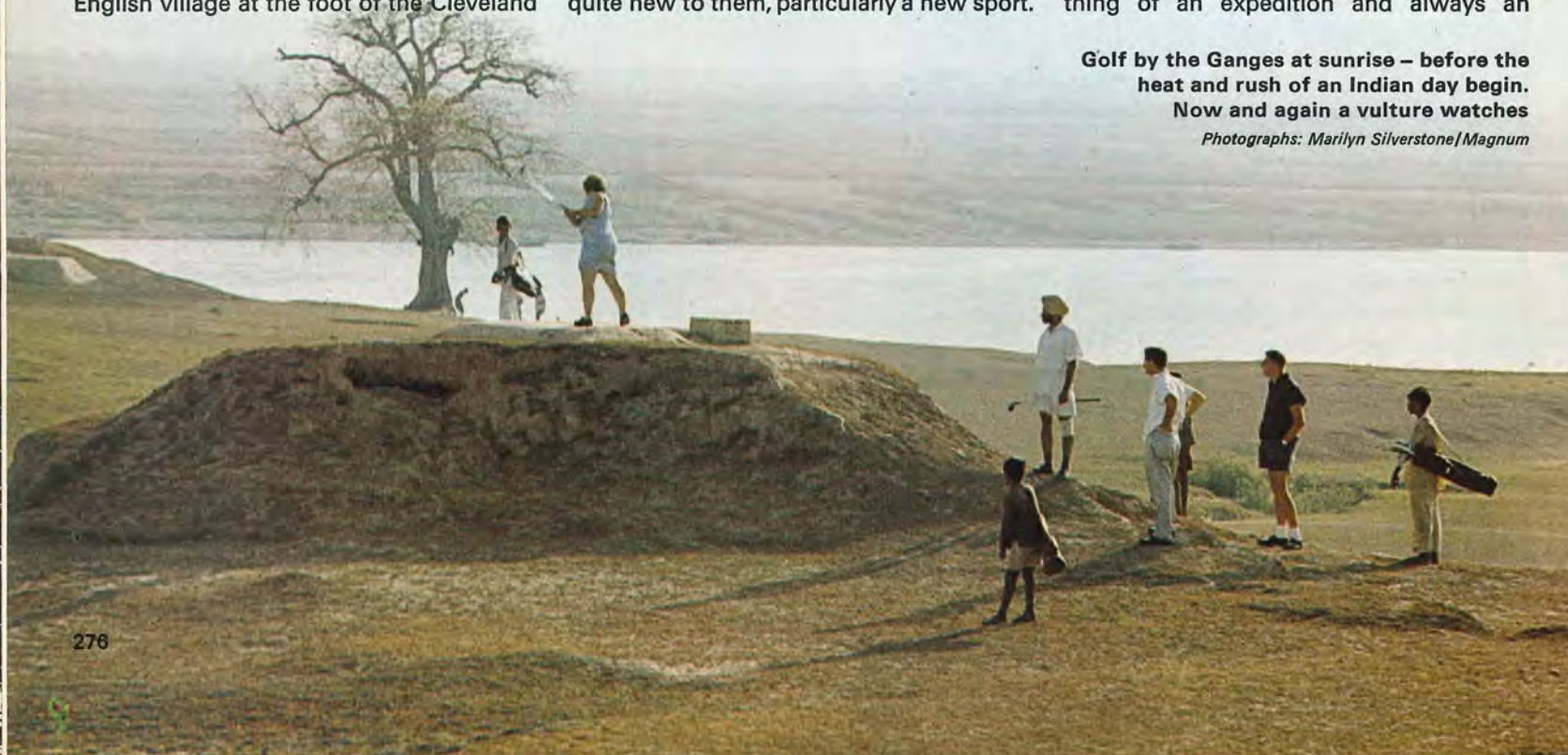
Many people are playing golf and squash for the first time, while their children are fast becoming 'water-children', swimming well and strongly as they probably never would have done in England for want of practice. Some of us are learning to play the *sitar*, an Indian stringed instrument, and there is a move to have classes in Indian dancing, too. Others are learning to paint, with special interest in Batik painting, a special kind of Eastern painting with a 'cracked' effect made by using a hot wax process to add each colour required.

My personal life has never been richer or fuller, mainly because the Indians involve us so much in their lives. At their family weddings, even those of total strangers, we are often the honoured guests, while our own doings both in our homes and on the site, are of great interest to them. All this affectionate attention has made it a little difficult, sometimes, to keep our feet on the ground, because we seem to have become necessary – even important – to quite a number of people in Kanpur. I hope that when we come back to Britain, our friends will bear with us until the usual domestic round brings us back to normal.

To travel in India is one of the great thrills of living there. I find it hard to believe that I have now actually visited Kashmir and seen the Taj Mahal at Agra, so remotely out of reach did they always seem before. There is a fairly good internal air service, but we much prefer going by train or car. Train travel over long distances is something of an expedition and always an

Golf by the Ganges at sunrise – before the heat and rush of an Indian day begin. Now and again a vulture watches

Photographs: Marilyn Silverstone/Magnum





'There are very few shops as we know them . . .' Nancy McLellan, left, Shirley, wife of Bob Thompson, and Brenda, wife of Ray Marriner shopping in the Shivala Bazaar

exciting adventure. Distances are great, which means fewer and more crowded trains. For a long-distance journey one must book well in advance, especially if one wants to make sure of an air-conditioned compartment in the hot season when the average temperature reaches 110°F.

Our own favourite journey is the 600 miles from Calcutta to Kanpur. I never lose the thrill of arriving at bustling old Howrah station. The long, long train stands waiting with noise and confusion all alongside it: beggars plead, platform salesmen cry their wares of fruit or pungent, delicious-smelling Indian food cooked on the spot – which I am never allowed to sample.

Then into the train, where the sleeping-compartments are so much bigger than English ones, and very clean. They have either two or four berths, a wash basin, one or two stools, a wardrobe, and a folding-table. One is tucked away for hours with picnic meals. If a family of two or

three people goes into a four-berth compartment, it is anybody's guess who will join them for the journey. Our own fellow-travellers have included a bearded and turbaned Sikh and a semi-paralysed M.P. Going to bed and getting up are always carried out with dignity – and diplomacy!

To travel by car is an even bigger adventure. We must have covered several thousands of miles now, most of them in the mountains of Kashmir and Uttar Pradesh, often at great heights above sea-level. Despite servicing, checking and re-checking beforehand, something always breaks down, but the ingenuity of village people with wire and string is fascinating.

Throughout India there are bungalows where travellers can always get a meal and a bed. These are government-run and range from the excellent to the sordid. Although the main highways are fairly good, in parts of Northern India the roads are often narrow and not well-surfaced

Mothers pick up their children after school. In the hot season, school begins at 7 am, ends at 12 noon



(if surfaced at all), so the dust rising up for a lot of the year is quite suffocating.

The standard of driving is often terrifyingly low: one is constantly amazed at arriving anywhere at all. And yet one does, in spite of the dozens of ox-and buffalo-carts (mostly still with huge, unshod cartwheels) which trundle along main roads at about two miles an hour.

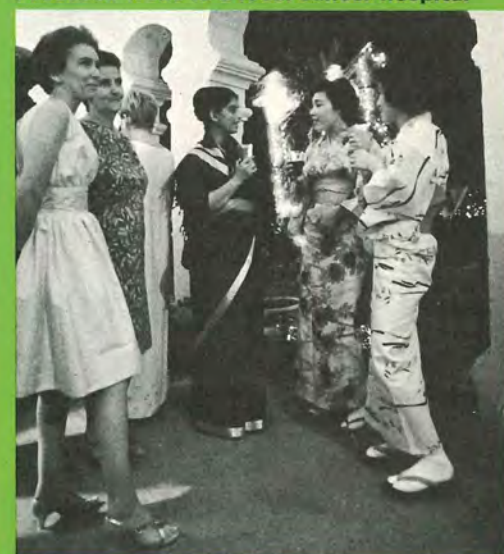
Far deadlier hazards are the lorries that hurtle straight down the middle of the road, usually driven by merry-eyed Sikhs in gay turbans, who never give an inch either to right or left. Often mechanically decrepit, these vehicles are beautifully painted with animals and birds and trees, always with the inscription on the back, 'Horn please. O.K. ta ta'.

The driver comes straight at you, so the motorist has to pull over, off the tarmac on to the bumpy, dusty shoulder of the road. Then, with a sigh of relief, he climbs back on to the road again. Yet one is never bored. Tired, irritable, dirty, yes: bored, never. There is always something to see, never a stretch of road along which people are not moving: often a crowd of villagers, the women in gay saris, going on foot to a fair, or a festival in the next village or town.

There are peacocks, storks and kingfishers to watch; cute monkeys playing at the side of the road; an elephant stomping past with his bell jangling; a group of camels with their heads held high in disdain. Now and again from the road one can see a couple of oxen plodding patiently round and round as they work the wheel of a well, or a woman drawing water with a grace and dignity that cannot have altered since ancient times.

As for the plant itself, our reason for being here, I know little of the technical problems tackled and overcome in building it. But I do know that we are all becoming proud of the factory that has risen up on what was so short a time ago a paddy field. For ICI this has been Project 2094. To those of us who have lived and worked here for two years it has been an unforgettable revelation of India. 🇮🇳

A dance at the McLellans' home: some of the wives organised a special party. Proceeds went to a local cancer hospital

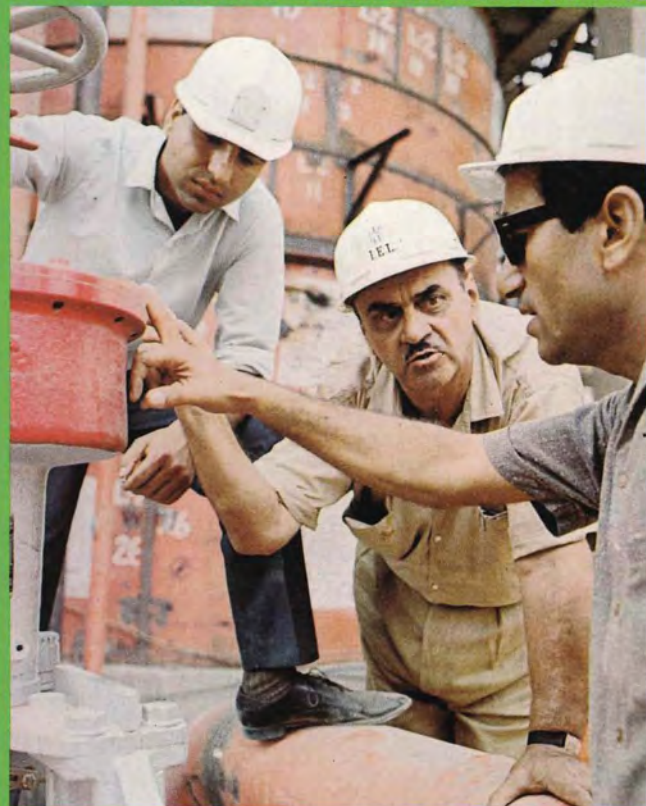




Inside the ammonia compression building, Mr Amadiou of Nuovo Pignone supervises the installation of some Italian equipment

In the plant model room, British supervisor Archie Boston explains the working of plant to his Indian counterparts, R. M. Saluja (left) and R. C. Paliwal (centre)

Indian mechanical construction supervisors Mr I. S. Bedi, Mr C. D. Wilson, and Mr S. L. Khanna discuss a control valve



# 'HELPING INDIA'S GREEN REVOLUTION'

Alan Hamer

During the first half of the present decade, India's food production remained stagnant and the country passed through one of the most acute food shortages ever experienced. The Government of India recognised the essential role fertilizers must play in boosting the agricultural economy, and have made this a special feature of the Third Five-Year Plan.

In particular, relaxation was made in fertilizer policy and private investment was welcomed by granting freedom from a number of important controls. Today, the longed-for 'green revolution' in agriculture now seems firmly established in India, and self-sufficiency in food grains seems at last to be a practical possibility in the near future.

ICI (India), realising it could make an important further contribution to the growth of the Indian economy in this area, quickly formed a team of experts to carry out a detailed survey in Northern India, which clearly established the potential demand for fertilizers. The excellent response shown by Indian soils to the application of nitrogen led to the decision to erect a plant for the manufacture of urea, containing 46 per cent nitrogen.

Kanpur was chosen as the site for the factory, not only because of the good potential for nitrogenous fertilizers in the surrounding countryside, but because a

pipeline had already been laid to link Kanpur with the Government-owned refinery at Barauni 300 miles away, thus providing a convenient source of naphtha, the main raw material used in the manufacture of the intermediates ammonia and carbon dioxide.

The Kanpur plant is being built by Indian Explosives Limited (IEL), an ICI subsidiary in which the parent company holds a 51 per cent equity interest. The remaining shares are held by the Indian public, including farmers in the area of IEL's operations, the Government of India, and the International Finance Corporation, an associate of the World Bank.

The plant stands on a 270-acre site four miles from the centre of Kanpur, next to the Panki Railway Station. Investment in the project will be Rs.62 crores (£34.4 million). When in full production, the plant will produce 440,000 tons of urea a year, making it one of Asia's largest fertilizer factories. This local production will probably save over Rs.30 crores (£16.7 million) annually in foreign exchange required to import fertilizers into India, and will help to increase food-grain production by two million tons per year.

After nearly two years of hectic activity, the plant is nearing completion and should be on stream before the end of 1969. For

the ammonia plant, over sixty staff from Agricultural Division have been seconded to India for the construction and commissioning phases. The ICI people from the UK have joined forces with Indian colleagues drawn from IEL and the other ICI companies in India. The urea plant is being built and commissioned by Japanese contractors using the Mitsui Toatsu Process. The combined team is enthusiastically tackling the formidable task of constructing this sophisticated plant in the quickest possible time, and at the same time meeting the necessary exacting specifications and standards.

The product will be marketed mainly in the states of Uttar Pradesh, Punjab and Haryana, all in northern India. Already the distribution and marketing organisation has been established, which eventually will be capable of handling the large output of the factory. An extensive 'seeding' programme has already been in operation for almost two years with urea mainly imported from Billingham, and a team of specialists has also been set up to provide technical service and advice to farmers.

The factory is to be officially opened by the Prime Minister, Mrs Indira Gandhi, on December 6 1969, a day deeply significant to all whose hopes, aspirations and plans have crystallised at last into reality. (C)

Left: Y. Araki, Japanese piping engineer, Colin Carney, British construction supervisor, and M. A. Shaikh, Indian construction supervisor. Right: George Knight, instrument supervisor, with an Indian technician working on the ammonia control room panel



ICI receives each year in the United Kingdom nearly £1000 million from sales at home and exports abroad. It also receives money from royalties, dividends, Government investment grants and many other sources. It pays money out on salaries, wages, new plants, dividends, taxation and so on. This means that throughout ICI in the UK £7 million in cash moves in and out of ICI's coffers *each working day*. The control of this vast sum is a vital part of our business, for it is important to see that all this money is in the right place at the right time.

This income must be put into ICI's bank accounts as quickly as possible so that it can be used elsewhere. Also enough money must be made available in the bank accounts used to pay our suppliers, our employees for salaries and wages and the Government for tax and other dues.

It would be easy if what we received each day balanced what we pay out, with something left to meet emergencies; but it doesn't work this way for a number of reasons. For instance, receipts from home customers are higher at the beginning of each month than at other times, while the tax and dividends we pay are in very large amounts at infrequent intervals over the year. The 'cushion' of cash we need to meet the varying payments and the varying times when they are made has to be carefully administered – and the best way to do this is for control of all ICI's cash to be centralised in London.

#### Bank accounts

Responsibility for the day-to-day administration of ICI's cash rests with Harry Mortimore, the ICI cashier at Millbank, acting under the policy directives of Fred Hillebrandt, the treasurer. Harry has been dealing with ICI's cash for most of his service and retires at the end of the year. His is some responsibility, because ICI's balances of liquid funds are often huge; at the end of 1968 ICI's balance sheet showed cash and short-term investments equivalent to over £100 million.

Not only are the balances large but the volume of transactions is large. Each year, 300,000 cheques go to our suppliers, and nearly two million warrants are posted covering all the dividend and loan interest payments to our stockholders. The work of handling all ICI's money transactions must therefore be spread over all ICI's banking accounts. The Company has current accounts at eight of the main London clearing banks, into which all ICI's receipts are banked, and out of which all payments are made. The Divisions and most home subsidiaries are fed with money from these London accounts, to pay their salaries and wages and some local out-goings.

However strong the Company's cash position may be at any time, it is important for a company of ICI's size to have overdraft arrangements agreed with its main bankers. These are intended to ensure that money is always available to meet temporary emergencies, to avoid strain when, for example, heavy capital construction

## making the cash pay its way

Reg Renshaw

**Albert Frost, the Company's finance director, writing in the September ICI Magazine on how ICI is financed, said that the temporary investment of our cash is a story in itself. Dealing with the vast amounts of money which ICI receives and pays is the work of the 'back-room boys' of the Treasurer's Department**



**and the cashiers in Divisions and subsidiaries. Here the focus is on Harry Mortimore (left), the ICI cashier, who retires at the end of this year after nearly 40 years of cash administration**

bills fall due for payment over a period of time, and to bridge the gap between more permanent financing operations such as any new issue of share capital or loan stock.

Harry's first job each day is to examine summaries showing what has been received into and paid out from the eight bank accounts on the previous day. He needs to know what is likely to be the nature and amount of transactions expected to take place during the current day and in the immediate and longer-term future. From this he can judge what money needs to be moved from one account to another to keep them just in credit and what money should not be required either that day or in the days ahead.

Idle cash left in banking accounts is of no use to anybody, except bankers, so that money not immediately needed by ICI to make payments is temporarily invested to earn interest and help the Company's profits. Money is received daily, and if not required to meet outgoings immediately it is put aside and accumulated to meet large payments in the future, e.g. the tax bill of over £40 million at the beginning of the year. 'Putting it aside' means temporarily investing it in some interest-earning place.

Deciding on that interest-earning place is a matter of judgment and depends on the rates of interest and the periods for which the money is available. If the ordinary person sees it as a game, it is only because it is a very complex and not widely known activity, but ICI would be failing in its duty if the best use was not made of surplus funds in this way. The average return ICI gets on these deals depends on prevailing

interest rates in the United Kingdom, which in turn can be affected by international rates. The current average – taking all periods of lending into account from overnight to a year or more – is nearly 10 per cent per annum – the highest ever. In a 'cheap money' era the average will be much lower.

Dealing in this way is a specialised job and brings Harry into contact with the money market of the City of London.

#### London's money market

This market as a whole comprises (i) the activities of eleven discount houses who deal in a particular field of finance – Gilts, Bills of Exchange and Treasury Bills and (ii) a much larger number of banks, finance companies and institutions who deal in the lending and borrowing of money. Their business covers a very wide field including the supply and price of short-term loans from banks; the market for short-term bonds; the market for short-term loans to local authorities; and the market for inter-bank loans existing among the overseas and merchant banks.

All this is a complex market for lenders and borrowers of money on a gigantic scale, ranging from the British Government (for their daily and weekly needs), foreign Governments, banking houses, both in the United Kingdom and abroad, city, town and rural corporations and councils (local authorities), manufacturing and trading companies like ICI, hire purchase companies, and private individuals.

The money market works in much the same way as any other market where goods are bought and sold. All parties at some stage either have money to lend or want to borrow it, which may be from one day (overnight) to any period you like to mention. The rates of interest depend on a variety of factors – UK Bank rate, Government limits on bank lending, economic factors surrounding the UK and overseas, length of time for which money is required, the risks of non-repayment and so on. But in the end the rate varies according to supply and demand; how many borrowers there are against how many lenders. Rates can vary hourly and during most of 1969 have been at record heights.

Money flows from one place to another; for example, if interest rates are high in London and lower in New York then money will flow to London, provided that no unfavourable exchange fluctuations are likely; if a hire purchase company is experiencing a keen demand for motor car finance, it will want to borrow money; a bank having a large increase in its deposits will re-lend them at interest. All these activities and very many more are brought together in the London money market.

The Bank of England's influence on the money market is considerable, since it applies the Government monetary policy to other banks and financial institutions. In doing so, it affects credit, interest rates and the external demand for sterling and so creates conditions affecting the state of the economy as a whole.

Harry Mortimore knows these markets well, for he will spend much time each day telephoning banks, finance houses and money brokers operating in them. When he has it to spare he will lend sums of £ $\frac{1}{4}$  million upwards for periods varying from overnight to a year or more. These transactions are all done on the telephone in conversations lasting perhaps only a few seconds. Trust and integrity of the dealers are such that the only written confirmation of a loan of these large sums comes after the money has actually moved.

**DEPOSIT RECEIPT**  
(Not Negotiable)

**W. Y. Z. LIMITED**

I £ 1000.000.

Date: 21st January, 1978

Received from Imperial Chemical Industries Limited,  
Imperial Chemical House, 611 (Trade), London E.C.1.  
The sum of one million pounds  
held on Deposit with interest at the rate of five per centum per annum payable  
gross  
Quarterly, since 1970.  
and repaidable on demand.

For and on behalf of  
W. Y. Z. Limited

*Attest:* [Signature]  
*Per W. Y. Z. Limited*

Registered and Classified Company Name	Trading Symbol or TICKER	1978	Amount in \$m. 1977	1979	Price and Date of Offer
		75,000,000	2		
1 944 874-1 N01 2151-17	90 (79-10)	8 x 17	306	± 6 7/8	Eschexner (Mar., 1978) raised to 99
2 108 1-1 737 16-57	92 (80-10)	± 16 1/4	1218	± 2 1/2	Savings I Sept., (1978) to 104. On Oct. 10, (1978) (also offer 104 1/2 - 104 3/4 and 110 1/4)
3 100 1-1 941 11-18	92 1/2 (80-10)	1 x 12	348	± 6 1/2	Treasury 26 Jan., (1978) to 104. On Oct. 10, (1978) (also offer 104 1/2 - 104 3/4 and 110 1/4)
4 102 1-1 90 8-11	92 1/2 (80-10)	1 x 8 1/2	608	± 5	Conversion 15 July, (1978) to 104. On Oct. 10, (1978) (also offer 104 1/2 - 104 3/4 and 110 1/4)
5 100 1-1 78 8-11	90 1/2 (80-10)	0 x 25 1/2	73	3 1/2	Brit. Gas. Grid. 10 Sept., (1978) raised to 99

The type of 'Gilts' Harry would buy are those within a year or two of their repayment date, because this fixes the amount of the repayment and reduces the risk of loss due to fluctuations in the market value.

Symbol (Ticker)	STOCK	Div. Div.	Historical Date	Price	Strike Amount Contract	Days Until Expir. Date	Implied Volatility (% Vol)	Y. Variance + - %	Open Position
0001	BIRMINGHAM 4 1/2	1	Jul. 1937/70	111					
184	BRADFORD 3 1/2	1	Aug. 1960/70	176					
0000	HULL 2 1/2	1	Aug. 1960/70	176					
2300	STOCKS-ON-TREAS 3 1/2	1	Sep. 1960/70	195					
1300	LEICESTER 2 1/2	1	Oct. 1965/70	160					
0000	PAISLEY 4 1/2	1	Oct. 1968/70	160					
0400	KENT 3 1/2	1	Dec. 1960/70	170					
9700	BLACKPOOL 2 1/2	1	Jan. 1966/71	111					
0100	CROYDON 3 1/2	1	Jan. 1964/71	112					
2377	AYE 3 1/2	1	Jan. 1966/71	111					
0000	EDINBURGH 5 1/2	1	Aug. 1969/71	184					

**Sterling Certificates of Deposit** are certificates issued by banks entitling the purchaser to repayment of his money after a specified time, with interest. The Certificates can be sold at any time before maturity at a price and here, too, there is a recognised market. A copy of a representative Sterling Certificate of Deposit appears below (again with the name of the organisation removed).

NEGOTIABLE STERLING CERTIFICATE OF DEPOSIT

**A MERCHANT BANK**  
Somewhere Street London EC2

£ 50,000.-

Maturity Date **4th October 1970** First  
LONDON, 3rd October 1969

A MERCHANT BANK, Certifies that

the sum of **Fifty thousand pounds only**

stands to the credit of **Mr. J. Smith** and is available to him on demand of this certificate, through an authorized bank or branches, in London, E.C.2 on the **Fourth October 1970** and, with interest at the rate of **5 per cent. per annum, calculated on a 365 day year basis**, from the date hereof to the date of maturity only, payable at maturity of one year or less from the date hereof and, thereafter, annually on the anniversary of the date hereof and at maturity.

The cash is held at  
A MERCHANT BANK.

for and on behalf of  
A MERCHANT BANK.

(Circular Stamp)


(Circular Stamp)

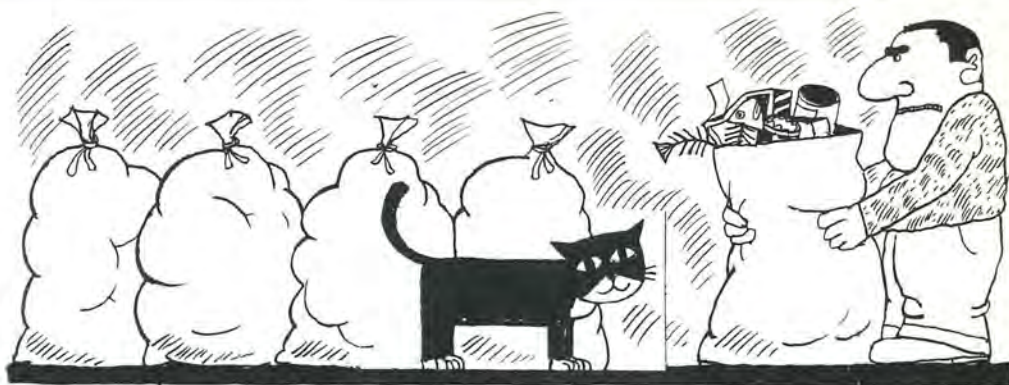
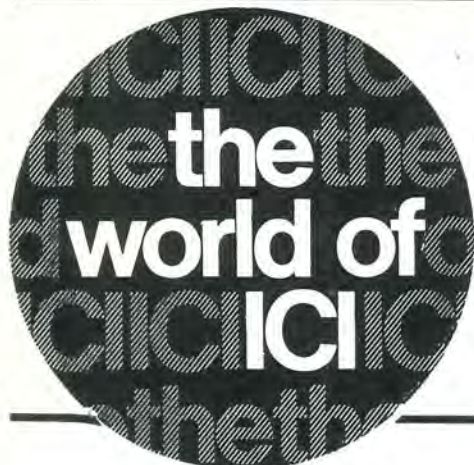
time in the future. This is common in export trade, particularly when a term of credit such as three to six months has to be given to secure an order; the Bill gives an added security that you should eventually be paid.

SIX-TEN BILL OF EXCHANGE  
 £10 000/100  
 LONDON  
 On 14th January 1900 (Twenty) pay this First of Exchange  
 Second of the same tenor and date unpaid to our order  
 the sum of TWENTYTHOUSAND SIX HUNDRED AND FIFTY POUNDS ONLY  
 Tenus under L/C No. 8714/1000000 £2,34,9,99 covering amount of SHUTTLES of  
 made in C.A. "Black Polyester" value received  
 To A.S.C. Importing Company.  
 P.O. Box, Bangalore.  
 For and on behalf of  
 Imperial Chemical Industries Limited

A special form of Bill of Exchange can be drawn under an **Acceptance Credit**, whereby a manufacturer or a merchant creates his own Bills and sells them to a merchant bank, usually for three months, the transaction being based on the manufacturer's sales of finished goods or purchase of supplies. The merchant bank either retains the Bills itself or sells them through a discount house, but either way, pays the manufacturer the face value less discount. Although in the end, the manufacturer has to repay the amount of his Bill, he has had the *use* of the money for three months. On a big scale these bills are a useful source of money to companies like ICI, but Government restrictions on lending make these rather limited at present. A copy of this special form of Bill of Exchange which can be drawn under an Acceptance Credit is reproduced below.

[illegible]

Harry will deal each day in the above way with investments giving the best benefit to ICI, until he is sure that he has left as little idle money as possible in the Company's bank accounts. He often moves many millions of pounds in a day from one place to another – yet the only time he handles any real cash is when he pays for his lunch and his bus fare on the way home. 



## Safety: Policy Statement

A formal statement of Company policy on safety was made by Sir Peter Allen, ICI chairman, at the 68th meeting of the Central Council at Blackpool on 21 November.

The chairman said that since the last meeting he had reviewed the Company's accident prevention arrangements with Division chairmen and with other members of the Board. He thought it of great importance that everyone should know of the Company's great concern for the safety of its employees and that they should understand both Company policy and their own responsibility. He then read the following statement of the Board's attitude:

*'It is the policy of this Company to give the greatest importance to the safety of its employees, considering this as a management responsibility ranking with production, sales and costs. In the design, construction, operation and maintenance of all plant, equipment and facilities, it is the duty of management to do everything possible to prevent personal injuries. It is equally the duty of every employee to exercise personal responsibility and to do everything possible to prevent injury to himself and to others.'*

During his opening address the chairman also referred to the introduction of the Weekly Staff Agreement—'perhaps the greatest step forward in human relationships since the Company was formed'—and the Staff Development Programme, and said steady progress was being made with both.

## 7,000,000 sacks

About one in four of the population of Britain was affected by the dustman's strike last autumn, estimate British Visqueen Ltd. They ought to know—because they provided seven million polythene sacks to 82 local authorities up and down the country, including 17 in London alone. And they switched all available production lines to cope with the job. A large transport fleet was mobilised and many authorities had their sacks within 48 hours of asking. Cost, on average was 4d a sack. BVL, a subsidiary of ICI, is the biggest manufacturer of plastic sacks in the world.

## CBE for Dr Kamm

Recently awarded the CBE for his services as Chairman of the Post Office Users' Council was Dr E. D. Kamm, who retired from ICI in May 1965 after 37 years with the Company.

Dr Kamm joined the original Synthetic Ammonia and Nitrates Ltd as a research chemist in 1928. In 1934 he became a member of the Fertilizer Group sales department in London, and four years later he joined the South-Eastern Sales Office as assistant to the chemical sales manager, becoming acting sales manager (plastics and special products) in 1941. From 1941 to 1943 he worked in Head Office development department, after which he became Plastics Division commercial manager, and a director of that Division in 1947.

When the 'Terylene' Council was created in 1951, Dr Kamm became an original member, and when Fibres Division (now ICI Fibres Ltd) was formed in 1956 he was made a director of it. From 1961 until he retired he was development director of the European Council (forerunner of ICI (Europa)).



## PPL exports will top £13m: new posts

Exports by Plant Protection Ltd, who market ICI crop protection chemicals in over 130 countries, have grown at between 20 per cent and 30 per cent every year for the past few years, reaching almost £11m in 1968, and they will exceed £13m this year.

This rapid growth brings big changes in the marketing organisation of PPL. From now on, marketing effort will concentrate on four geographical regions, with a regional manager looking after each group of countries. These managers and their areas are: Mr W. G. Jenkins—America, Australia, New Zealand; Mr J. R. Denize—Far East; Mr R. C. Hampel—Europe; and Mr I. E. Darter—Africa and Mediterranean. They will answer to the two present overseas directors, Dr G. Watts Padwick and Mr A. J. Maier.

## Today—in Tehran

'No mosques. No minarets. Just a tide of grey houses sweeping across the dusty bowl of a great desert valley and into the foothills of the brown mountains enclosing it.' That is Tehran, capital of Persia, where ICI recently displayed some of its products at the 2nd Asian Trade Fair, as seen by the Company's chief press officer Jim Thurlby, who attended the Fair on duty and took the colour picture reproduced on our inside front cover.

High buildings, he found, are the exception in the city, because it is in an earthquake belt: the impression is of a city without a centre, a city of eternal suburbs, a city of no landmarks except the bare brown mountains. 'As you find with surprise' he tells us, 'that Omar Khayyam is not Persia's favourite poet, so you find the perfumed gardens of which he wrote are not a notable feature of the capital. But the traffic is—swirling in great rivers through the city, the madness gleaming in the taxi-drivers' eyes as the pedestrians perform their perilous ballet. There are ruins at Persepolis, there are mosques at Isfahan—but Tehran is the centre of the new Persia—a brash, modern, noisy commercial city—a symbol of a revitalised country—its heart, perhaps in the hills of history, but its eyes firmly fixed on the economic realities of today and tomorrow.'



## 'Crimplene'—Paris launch

A poncho in red, navy blue and white stripes, worn with white trousers, all in fabric made from ICI's 'Crimplene' yarn. Left: one of the garments modelled at 'Crimplene' in Orbit', the fashion show which has recently launched 'Crimplene' in France. Designed by Leclercq Dupire

## A call answered



Unlike Charles Purvis, who in his 'The call of the malts' article on page 274 quite correctly describes the difficulties of finding a reasonable choice of malt whiskies in the ordinary pub, even in Scotland, ICI Head Office staff at Millbank who share his taste for single malts have a remarkably good supply almost on their back doorstep.

It is in the 'Marquis of Granby,' the pub in nearby Dean Stanley Street, where the 'governor' is Angus Tait and there are about 130 brands of whisky on offer. Mr Tait has whiskies from Scotland, Ireland, North America and even from Japan, but as a native of Wick, on the far north-east coast of Scotland, he gives pride of place on his bar shelves to about 30 single malts, some of which are shown in the photographs above and on page 274.

Charles Purvis visited the 'Marquis' recently and among Mr Tait's malts he found some he had thought available only near their home distilleries and some, of brands released only occasionally for sale, which he had not heard of, let alone sampled. He expects to try them all during future visits to London—but the knowledge that one single pub in Westminster has so many malts will not put him off his search for others, perhaps even more rare, in other places. It may, in fact, as one might well imagine, have just the opposite effect...

## 'Melinex' film guards historic documents

ICI's 'Melinex' polyester film of the kind used in the radiation monitoring devices worn by the Apollo 11 astronauts on their moon-walk is now protecting ancient documents at the Cambridge University Library.

A new preservation and storage system, adapted from a method developed in Holland, helps to prevent valuable documents from damage through handling when examined. It uses the film to protect a collection of ancient Hebrew documents recovered from the Old Synagogue at Cairo. A series of edge-stitched folders, after insertion of the document, is held within a loose-leaf binder to form a book. Documents are further secured inside the folder by hand-sewn threads, and additional ones can easily be put in or changes made.

'Melinex' was chosen for the job because it is durable, tough, flexible, and clear enough to allow photography of documents through the film. Compared with glass, also used in protecting documents, etc. the polyester film is lighter, presents no storage or handling problems and is much cheaper.

## Cold work—at Novopolotsk

Six years ago, despite one of the bitterest winters to hit the North-east, HOC engineer Percy Hill was ahead of schedule in building the first plant on the Company's new North Tees Site on land reclaimed from the bleak Tees estuary. Today, as leader of an HOC team of six specialists, he is again pioneering in near-Arctic conditions, helping to commission a paraxylene plant being built by Constructors John Brown Limited to an ICI design at Novopolotsk in Byelorussia.

After several design-stage visits to Russia, Percy with his wife and son went out in March ahead of the commissioning team, just as the thaw was beginning. Mud and bogged-down vehicles soon recalled the 1953 East Coast floods when acres of mud slowed construction on the then new Wilton Site.

'Gum boots and thigh boots are the order of the day' he wrote in a letter home. A summer with temperatures in the 80's followed, enabling better building progress to be made, and in

## Underwater explosive

Nobel Division has added 'Subaq' 90 to its range of explosives and accessories for underwater blasting. 'Subaq' is a high-density, high-power gelatinous explosive contained in a flexible plastic cartridge cylinder, along whose length runs a plastic tube through which 'Cordtex' detonating fuse or electric detonator leading wires are easily threaded. This prevents abrasion of the fuse or the wires and makes the loading of shot holes easier. The assembly has been intensively and successfully evaluated in underwater blasting at Milford Haven, Hong Kong, and Singapore.



August the commissioning team joined the Hills. On the day they arrived – with several CJB engineers – Mrs Hill found herself hostess to a party of 16 for lunch. She also provided the buffet that evening when the new arrivals were ‘truly initiated into Russian hospitality.

The team is now ‘working like mad’ as one of Percy’s letters puts it; some sections of plant are ready for them to start-up and, in fact, by mid-November they had produced the first small quantity of crude paraxylene.

They are now feeling the bite of a new Russian winter where temperatures average around 19 degrees F. in the cold months but can drop to minus 38 degrees F.

Precious extras taken with them from home have a habit of running out and occasionally colleagues in HOC get an SOS for coffee, tea bags, marmalade and corned beef – the latter being almost a luxury. There have been difficulties, too, in getting English newspapers to the team and seasonal shortages of fresh fruit and vegetables, but despite their trials they remain in good spirits and are well thought of by the Russians. They recently had a visit from a large Russian delegation which included the Minister of Petroleum. Last month, Scott Forsyth, HOC External Relations Manager and Bob Clark, of Olefine Works, paid a brief visit to review progress and make plans for the immediate future.

Meanwhile, the team is looking forward to the possibility of home leave for Christmas.

## Maleic anhydride: 50 new Nobel jobs

*Nobel Division has commissioned its maleic anhydride complex at Ardeer. Besides the basic units there are associated plants for making malic and fumaric acids. This complex is an important diversification into a new chemicals area for the Division. Some 50 new jobs have been created, with more likely to follow.*

*Products are used in the surface-coating and resins industries, such as paper-making and paint resins, and the new plant will extend the Division’s role as a supplier to these industries. Capital investment is over £2m.*

## EVA for beer

All the 61 public houses and hotels owned by Swindon-based brewers J. Arkell & Sons Ltd are being re-equipped with beer hose made from ‘Alkathene’ EVA (ICI’s ethylene/vinyl acetate copolymer). The new hose is already installed in several pubs and the changeover will be completed by January. This decision

followed long-term tests under working conditions and coincides with the brewery’s switch to top-pressurised beers in aluminium casks.

At 6d a foot, with an average length of 200 ft per cellar, the total cost for re-fitting all pubs with EVA hose is less than £300 – much lower than many competitive materials. Victroplas Ltd extrude and supply the hose. Apart from low cost, the grade used is free of odour and taste and does not kink – which helps installation and cleaning. Beer within it is completely visible, while the fact that a tube diameter can be as low as  $\frac{3}{8}$  in. keeps down wastage.

## ‘Nitram’ plant

*Agricultural Division recently commissioned its second ‘Nitram’ fertilizer plant. Within three hours of start-up the plant at the Division’s Billingham works on Teesside was producing ‘Nitram’ fertilizer to specification and four hours later the product was on its way to the farmers. The new plant can produce 360,000 tons a year. Equipment to control effluent, costing £500,000, built into the plant, seems to be working well.*

When Mr Brian Dixon of the shipping department at ICI Holland NV’s Wijnhaven office by the quayside in Rotterdam was faced with the problem of getting a large consignment of ‘Melinex’ polyester film very quickly to America, he found that the most economical way to deliver the goods on time, was to charter a whole Boeing 707. So the order which was despatched on Friday reached the customer in America the following Monday – all 34,000 kilos (or 75,000 lb) of it – that’s a mighty lot of ‘Melinex’ as our picture from ICI Holland shows





## Percy Thrower

This month the gardener's thoughts turn to Christmas. Less gardening will be done this month than, possibly, any other in the year. There's so much to think about, so many preparations to be made. First, the Christmas presents to be bought. There is a wide choice of gifts for those interested in gardening. The Horticultural Trades Association has a Gift Token scheme in which a token can be purchased and exchanged at any garden shop or garden centre which is a member of that Association, and the majority are.

Choosing presents is always difficult, but a shrub, a rose, or a tree does, I think, make an acceptable – and a long-lasting – gift. There are seed collections in Christmas packs, as well as garden products with their special Christmas wrappings.

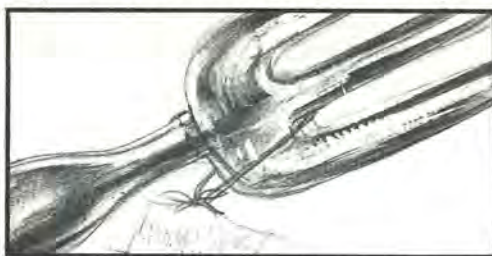
The list of tools and pieces of garden equipment is almost unending, and these, too, are attractively packed these days. There are secateurs, trowels, hand-forks and other garden tools in chrome armour or stainless steel, very easy to keep clean.



Flowers and pot plants are always most welcome at this season of the year. The popular buy will be chrysanthemums as cut flowers, and for flowering plants in pots, such favourites as cyclamen, primulas, early bulbs, solanum capsicastrum (the orange berry plant), winter flowering begonias and poinsettias. All these must be given a place near the window where they

get the maximum amount of light; they must be kept away from draughts; and be kept in a warm room. Given the right care, these plants will last for a very long time.

For decorations, there is not only holly, mistletoe, evergreens, but various berried shrubs too. These include pyracantha lalandii with the orange-scarlet berries, commonly known as the firethorn; cotoneaster; pernettya with white, pink or purple berries, euonymus europaeus, with coloured capsules and berries, and such remaining rose hips as those from that very beautiful shrub rose, rosa moyesii.



To give the ivy that Christmas look, we paint round the edges of the leaves with shoe-white, and while it is still wet, sprinkle on some glitter. A touch of glue or paste on the holly, the other evergreens and the berries, then sprinkling with a little glitter gives the appearance of melting frost or snow.

We find winter-flowering shrubs very useful for the table decoration and for other arrangements around the house. This is where these shrubs and trees prove so useful. They include such as the old favourite yellow winter-flowering jasmine, the pinkish white viburnum fragrans, the winter-flowering cherry, double flowers of pinkish white (*Prunus subhirtella autumnalis*), mahonia japonica or winter-flowering berberis, and erica carnea.

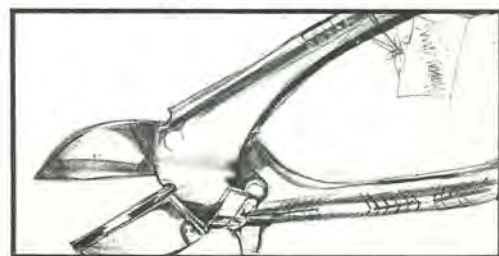
More important than what you look at is

what you eat. A well-planned vegetable garden will provide brussels sprouts (always a favourite at this season), cabbage savoy, parsnips, leeks, and celery to enjoy with the cheese. From store there should be apples, carrots, beetroot, onions and potatoes. These things go a long way to the making of a real Christmas dinner – and are always more appreciated when they are from our own garden.

A part of the garden which must not be neglected over Christmas is the greenhouse. Some plants may require watering, and if the weather is mild, the ventilators will need to be opened during the day. There are more bulbs to be brought into the warmth to keep a continuity of flower until those in the garden begin to come out.

If chicory was grown in the vegetable garden during the summer and autumn, then some of the roots can be put into pots or boxes and put under the greenhouse staging in the dark: this will force on those creamy yellow crisp leaves which are so delicious in salads. And what about lifting a large root of rhubarb and putting that in the dark underneath the greenhouse staging, too? This will provide those delicate pink sticks of rhubarb for use early in the New Year.

Christmas is a busy time for us all. To all our gardening friends, a very happy Christmas, and a New Year with health and many happy hours in the garden. ☺



# decimalisation a half-term rev

**'On 15 February 1971 Britain goes over to decimal currency. It seems a long time away – but ICI is already planning for the day when the £ will contain one hundred bright new pence.' So wrote Michael Danckwerts in this Magazine fifteen months ago. In another fifteen months 'D-day' will have arrived**

Already, with the issue of the 50 new pence coin, that strange equilateral curved heptagon, half of the six coins required for the new currency are in circulation – 5p (1s), 10p (2s) and 50p (10s). The other three coins, which will not come into circulation until D-day because they do not have exact equivalents in our present currency, are the two new pence, one new penny and half new penny. The old halfpenny has disappeared and the half-crown ceases to be legal tender at the end of this year.

The Decimal Currency Board has now changed the emphasis of its publicity from management, including the large retail organisations, to smaller businesses, especially in the retail and distributive trades. Next year the emphasis will change again and will be aimed at the general public.

The battle to retain the present sixpence ( $2\frac{1}{2}$  new pence) has been fought and lost, and the passing of the 1969 Decimal Currency Act has legalised the use of a conversion table for banking and other specific purposes. This table, reproduced opposite, will be used by the Company in calculating wages and salaries. It is a whole new penny table and goes up to 2s (10p) so as to have a complete balancing of gains and losses on conversion. You will see that 6d equals 3p, but 1s 6d equals only 7p. So when you bank amounts involving a sixpence in the transitional period after D-day it may be profitable to ensure that even, rather than

odd, shillings are banked at the same time. Government departments have already issued change-over plans for PAYE, National Insurance, Purchase tax and so on, and the banks have announced their arrangements, particularly for the days when they will be closed immediately before D-day. Machine suppliers have full order-books for the replacement and conversion of machines required by firms and organisations changing to decimal calculation on D-day or before.

With all this going on nationally the time seems right for a 'half-term report' which answers three questions:

**Is the Company on target with its change-over process?**

**What more has to be done before D-day?**

**How can we help to ensure a smooth change-over in the Company and in our everyday lives?**

On the first of these, the working parties set up by the Company's Decimal Currency Committee to look at specific aspects of decimalisation have all completed their work inside the target dates. Their recommendations have gone to Divisions, which are adopting those which apply to their own particular circumstances. Decisions on machine conversion and replacement, changes in pricing policy, and examination of computer programmes are among topics already involving many ICI people.

This year, Agricultural, Mond and Nobel Division have been selling in decimal prices. HOC, Plastics and IMI will join them in 1970, but the other four Divisions will not be 'selling decimal' until 1971. Paints and Pharmaceuticals are closest to the retail customer and Dyestuffs and ICI Fibres wish to introduce decimal selling at the same time as they go over to metric weights and measures. (Nobel, Plastics and IMI are also planning a simultaneous change to the decimal and metric systems

and Pharmaceuticals already sell in metric quantities, but other Divisions will not go metric until after decimalisation, for a variety of internal and external reasons.)

All Company costs and statistics for 1971 will be expressed in decimal currency and ICI will be a 'decimal house' from D-day. Staff directly affected by the change will have to be working just as effectively after D-day as they are before, so they will need all the 'tools' required – office machines, computer programmes, stationery and so on – on the change-over date. The responsibility for this rests with line managers in Divisions, whose objective for 1970 is to ensure that the target will be met.

The currency change will affect employees both in their jobs and in their everyday lives. The Company is to concentrate its training programmes on those directly affected in their work, but will also support the Decimal Currency Board's publicity for the others, using quizzes in newsheets, posters and other methods. Those who handle cash or operate machines with new keyboards will be trained and given time to practice the new procedures.

Everyone who is paid on the basis of an annual salary will be affected in 1971. At present, the annual salary, whatever figure it is, can be divided exactly by 12 to produce a standard monthly payment. In decimal currency, only annual figures divisible by three will produce standard monthly payments in whole new pence, so when the next salary adjustment takes place all annual salaries will be made divisible by three. We shall find our salaries in odd figures ending in any number from 0 to 9, instead of the present common numbers of 0 and 5.

We can all help to ensure a smooth change to decimals by reading the publicity material to be put out by the Decimal Currency Board between now and D-day and by doing the quizzes which will appear in national and other publications. We shall all have to polish up our decimal arithmetic and we should know the decimal currency rules in good time to apply them in the

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period after D-day, when old and new coins will circulate together. As mentioned above, anyone directly affected in his or her job will be trained by the Company but individual practice will be needed and we shall all have some homework to do.

Thinking, speaking and writing in decimals will soon become a habit if we resolve on 15 February 1971, to stop thinking about £ s d. The change should be simple, since there are few rules to be learned. If we remember that the £ has 100 new pence, that 1s equals five new pence and that 6d is the same as two-and-a-half new pence we shall know all that is needed for all cash transactions, because any use of mixed coinage is only possible where the coins have exact equivalent values in both currencies.

Shop prices, fares, etc., will be in only one currency, either decimal or £ s d., depending on whether the business has changed over to decimals. Whether buying in a decimal or £ s d shop, the customer will be able to pay in either currency—so long as his payment has an exact equivalent in the currency in which the shop is operating. In a decimal shop he must pay £ s d coins in multiples of 6d (equal to 2½p) and in a £ s d shop he will have to pay decimal coins in multiples of 2½p.

For checking on prices, there will be a shopping conversion table (published in the Magazine in July 1968) with conversions to the nearest new half-penny. It will work on the swings-and-roundabouts principle, so that gains and losses on conversion will cancel each other out. Selective buying between decimal and £ s d shops could well mean money saved—but it is hoped that conversion tables will only have a temporary life.

So there it is: a little homework, a few simple rules learned, and we should all be able to help confound Mr Patrick O'Leary, who has predicted in *The Times* that on the morning of D-day 'at least one bus conductor will leap to his death from the top deck rather than explain the new currency to yet another sleepy customer.'



## Banking and Accounting Conversion Table

Old Currency			New Currency
	1d		0p
2d	3d		1p
4d	5d		2p
6d	7d	8d	3p
9d	10d		4p
11d	1/-	1/1	5p
	1/2	1/3	6p
1/4	1/5	1/6	7p
	1/7	1/8	8p
	1/9	1/10	9p
		1/11	10p

